

**DESCRIPTOR-BASED LOAD BALANCING**

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**ABSTRACT OF THE DISCLOSURE**

5           [0130] A multiprocessor switching device substantially implemented on a single  
CMOS integrated circuit is described in connection with a descriptor-based packet  
processing mechanism for use in efficiently assigning and processing packets to a  
plurality of processors. A plurality of descriptors associated with each packet transfer are  
written back to memory in order, divided into subset groups and assigned to processors,  
10 where each processor searches the assigned subset for EOP and associated SOP  
descriptors to process.